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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/823,256	04/13/2004	Feng Anne Xie	DN2004-067	3495

7590 12/30/2005

The Goodyear Tire & Rubber Company  
Patent & Trademark Department - D/823  
1144 East Market Street  
Akron, OH 44316-0001

EXAMINER
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MULLIS, JEFFREY C

ART UNIT	PAPER NUMBER
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1711

DATE MAILED: 12/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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<b>Office Action Summary</b>	<b>Application No.</b> 10/823,256	<b>Applicant(s)</b> XIE ET AL.	
	<b>Examiner</b> Jeffrey C. Mullis	<b>Art Unit</b> 1711	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 14 October 2005.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-7,10,11,13,15,17-19 and 21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7,10,11,13,15,17-19 and 21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

Claims 1-7,10,11,13,15,17-19 and 21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The term particle size is unclear when unqualified as to the type of particle size since particle sizes exist as a distribution and therefore particle size will vary depending for instance whether the particle size is number or weight average etc.

Claim 10 depends on a cancelled claim and is therefore unclear.

Applicant's arguments filed 10-14-05 have been fully considered but they are not persuasive. With re to the sole remaining issue, applicants argue that particle size ranges are intended. However particle sizes exist as an infinite range of sizes. Note that applicants own specification at paragraph 70 discloses that applicants distribution of particle sizes are assumed Gaussian. Note that Puetter et al (US 20030174900A1) at paragraph 47, Armstrong (US 20050243938A1 ) at paragraphs 13 and 51 as well as Andersson (US005398885A) at column 22, lines 23-37 all disclose that Gaussian shape is mathematically infinite. The purpose of 35 USC 112, second paragraph is permit those skilled in the art to avoid infringing a patented claim but it would not be possible to determine if a composition infringed which, as in the instant case had not lower and upper limit on the amounts of particles with a particular size since failure to detect particles in applicants range could be due to insufficient sensitivity and only an instrument capable of infinite sensitivity (an impossibility) would be effective to determine if any particles at all were present in applicants range. In any case particle sizes are most often recited as a single particular size for a given sample, not a range

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and applicants recited sizes would for this reason also would possibly be interpreted as a single number associated with a particular sample i.e. encompassing samples of for instance having a weight average particle size particle size of 30 nm or 100 nm etc.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

JCM

12-19-05

Jeffrey Mullis  
Primary Examiner  
Art Unit 1711

A handwritten signature in black ink, consisting of a large, stylized 'J' followed by a series of loops and a final flourish.